

# **Test Case GFE Pop (po 001-008)**

**for the  
AWIPS  
Contract  
DG133W-05-CQ-1067**

Prepared for:

U.S. Department of Commerce  
NOAA/NWS Acquisition Management Division  
SSMC2, Room 17364  
1325 East-West Highway  
Silver Spring, MD 20910

Prepared by:

Raytheon Company  
STC Office  
6825 Pine Street  
Omaha, NE 68106

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Submitted By:

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Test Engineer

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Date

Approved By:

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Program Manager

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Date

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Mission Assurance Quality

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Date

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## Revision History

Revision	Date	Affected Pages	Explanation of Change
1.0	27 July 2008	ALL	Initial Draft
2.0	8 August 2008	6-13	Redlines per PDT
3.0	4 September 2008	ALL	Redlines per DT

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## **1.0 SCOPE**

See Software Test Plan.

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## **2.0 APPLICABLE DOCUMENTS**

### **2.1 Source Documents**

- None

### **2.2 Reference Documents**

- Legacy NWS GFE Acceptance Test Case ID Numbers: po001 – po008.
- Legacy NWS GFE Test Cases for Test Areas AC – VP.
- Section 3.1.3 of the AWIPS D-2D User's Manual Build 8.1.
- Software Test Plan for the Advanced Weather Information Processing System Project, Contract #DG133W-05-CQ-1067, August 2008.
- The Silver Spring NWS AWIPS 1 test bed application.
- Release OB8.1 and OB8.2 of the Weather Event Simulator (WES).
- Rational RequisitePro.

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### **3.0 TEST CASE DESCRIPTION**

This test case verifies that the Populate NWS test cases.

#### **3.1 Assumptions, Constraints and Preconditions**

- Several weather elements are loaded
- There are multiple grids available for the weather elements (at minimum T, Td, Wind, Wx, and Hazards weather elements)
- TO9 software has been installed successfully
- CAVE, EDEX and pgAdmin III are running
- Data has been ingested
- Actions, Results, and Requirements highlighted in yellow indicate requirements and/or capabilities to be included in the scope of future task orders. They are included here for purposes of continuity and traceability with the original AWIPS I test case documents.

#### **3.2 Recommended Hardware**

See Software Test Plan.

#### **3.3 Test Inputs**

Section 4.0 below contains the test procedures for this test case. Sections 2.2 – 2.9 of the Software Test Plan contain general test inputs applicable to all TO9 test cases.

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#### **3.4 Test Outputs**

The results outlined in section 4.0 are met.

##### **3.4.1 GFE GUIs Tested**

- TBD

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#### 4.0 TEST SCENARIO

Step #	Action	Result	Pass/Fail
<b>po001</b> – Load Weather Element groups through the <a href="#">Weather Element Browser</a> and GFE Main Menu.			
1.	Bring up the <a href="#">Weather Element Browser</a> by MB1 clicking ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> '.	The <a href="#">Weather Element Browser dialog</a> appears.	
2.	On the <a href="#">Weather Element Browser</a> , select 'Edit' -> 'Select None'.	All previous Weather Element selections clear from the listboxes.	
3.	On the <a href="#">Weather Element Browser</a> , MB1 click the 'Cancel' button.	Weather Element Browser dialog closes.	
4.	From the GFE main menu, select ' <a href="#">WeatherElement</a> ' -> ' <a href="#">Weather Element Group</a> ' -> ' <a href="#">FireWx</a> '.	The Weather Elements for the group name for the FireWx group appear in the Grid Manager (GM).	
5.	Bring up the <a href="#">Weather Element Browser</a> by MB1 clicking ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> '.	The <a href="#">Weather Element Browser</a> appears with the Weather Elements for the FireWx group selected in the listboxes.	
6.	On the <a href="#">Weather Element Browser</a> , select 'Edit' -> 'Select None'.	All previous Weather Elements selections are cleared from the listboxes.	
7.	On the <a href="#">Weather Element Browser</a> , select 'File' -> 'Load Weather Element Group' -> 'Public'.	Weather Elements for the Public group name selected appear in the listboxes.	
8.	On the <a href="#">Weather Element Browser</a> , select 'File' -> 'Load Weather Element Group' -> 'FireWx'.	Weather Elements for the FireWx group name are added to the existing weather elements listed in the <a href="#">Weather Element Browser</a> .	
9.	Select the 'Load and Dismiss' button on the <a href="#">Weather Element Browser</a> .	The Weather Element Browser closes. The weather elements for the Public and FireWx weather elements appear in the GM.	
<b>po002</b> – Save and delete WE groups from the <a href="#">Weather Element Browser</a> .			
10.	Bring up the <a href="#">Weather Element Browser</a> by MB1 clicking ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> '.	The <a href="#">Weather Element Browser dialog</a> appears.	
11.	On the <a href="#">Weather Element Browser</a> , select 'Edit' -> 'Select None'.	All previous Weather Element selections are removed from the product selection list, and listboxes (Source, Field, Plane).	
12.	On the <a href="#">Weather Element Browser</a> , select 'Fcst' and 'ISC' on the Source pull-down, and 'T', 'Td', and 'RH' on the Field pull-down, and 'SFC' on the Misc pull-down menu.	The weather elements appear in the product selection list at the bottom of the dialog.	

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Step #	Action	Result	Pass/Fail
13.	On the <a href="#">Weather Element Browser</a> , select 'File' -> 'Save Weather Element Group'. On the <a href="#">Save Weather Element Group dialog</a> , enter 'po002' MB1 click the 'Save' button.	The Save Weather Element Group dialog opens. The Save Weather Element Group dialog closes.	
14.	On the <a href="#">Weather Element Browser</a> , inspect the group names that appear in the 'File' -> 'Load Weather Element Group' menu list.	The new group name 'po002' should appear.	DR #1429
15.	On the <a href="#">Weather Element Browser</a> , select 'Edit' -> 'Select None'.	All previous weather element selections are cleared from the product selection list.	
16.	On the <a href="#">Weather Element Browser</a> , select 'File' -> 'Load Weather Element Group' -> 'po002'.	The weather elements corresponding to the po002 group are loaded into the product selection list.	
17.	On the <a href="#">Weather Element Browser</a> , select 'File' -> 'Delete Weather Element Group'.	The <a href="#">Delete Weather Element Group dialog</a> displays.	
18.	Enter or select 'po002', and press Delete.	After a confirmation message, the weather element group is deleted.	
19.	On the <a href="#">Weather Element Browser</a> dialog, inspect the group names that appear in the 'File' -> 'Load Weather Element Group' menu list.	The 'po002' group name does not appear.	
20.	Close the <a href="#">Weather Element Browser</a> .	The Weather Element Browser closes.	
<b>po003 – <a href="#">Weather Element Browser</a> behavior</b>			
21.	Bring up the <a href="#">Weather Element Browser</a> from the 'Weather Element' -> 'Weather Element Browser' menu item.	The Weather Element Browser opens.	
22.	Examine the set of currently loaded weather elements listed in the browser, and match those to the currently loaded weather elements in the GM or Spatial Editor (SE).	The same set exists in both places.	
23.	Toggle off one of the field box entries.	The entry still appears in the Field listbox, but it is no longer highlighted, and the corresponding entry in the Product Selection List is removed.	DR #1393
24.	Toggle off 'SFC' from the Planes listbox.	All entries in the Product Selection List that contained 'SFC' for the level are removed from the listbox.	
25.	Toggle on 'SFC' from the Planes listbox.	All entries reappear.	
26.	Toggle off several entries from the Product Selection List.	The entries are no longer highlighted and no changes were made to the Source, Field, and Planes listboxes.	

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Step #	Action	Result	Pass/Fail
27.	MB1 click on the 'Source' pull-down from the Sources listbox and choose an entry.	A list of available IFP-type models are shown. After choosing an entry, the entry appears in the Source listbox, and the Product Selection List updates if there are weather elements that match the Source, Field, and Planes listbox matrix.	
28.	From the Edit menu, choose 'Select None'.	All listboxes are cleared.	
29.	From the Edit menu, choose 'Select All'.	No change.	
30.	From the Edit menu, choose 'Start Over'.	The initial settings of the Source, Field, Planes, and Product Selection List are displayed and highlighted.	
31.	Toggle off several elements in the Field and Product Selection List. From the Edit menu, MB1 click 'Select All'.	All entries that were toggled off in the Product Selection List are toggled back on. Entries toggled off from the Field list are NOT toggled back on.	DR #1393
32.	From the Edit menu, MB1 click 'Select None'. From the File menu, MB1 click 'Load Weather Element Group' and select a weather element group.	After selecting None, the listboxes were cleared. After loading a weather element group, the list boxes reflect the contents of that weather element group.	
33.	Select 'D2D' from the Types radio button.	The Sources, Fields, and Planes listboxes generally are cleared, unless previous D2D data was loaded. The Product Selection List contains the previous selection.	
34.	Select a Source, Field, and Planes entry from the pull-downs above each listbox.	As the Planes entry is chosen, the available matches for the source, field, and planes appear in the Product selection list.	
35.	MB1 click 'Load and Dismiss'.	The elements chosen as indicated in the Product Selection List are loaded into the GFE. The Weather Elements Browser dialog is dismissed.	
<b>po004</b> – Add and remove fields from the <a href="#">Weather Element Browser</a> .			
36.	Select ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> ' to bring up the <a href="#">Weather Element Browser</a> .	The Weather Element Browser dialog appears.	
37.	MB1 click on a highlighted value in the Field listbox to deselect it.	The deselected value is removed from the product selection list listbox.	
38.	MB1 click the 'Load and Dismiss' button.	The Weather Element Browser closes. The deselected weather element is no longer available in the GM, i.e., the element is unloaded.	

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Step #	Action	Result	Pass/Fail
39.	MB1 click ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> ' to bring up the <a href="#">Weather Element Browser</a> .	The Weather Element Browser dialog appears.	
40.	MB1 click on several highlighted values in the Field listbox to deselect them.	The deselected values are removed from the product selection list listbox.	
41.	MB1 click the 'Load and Dismiss' button.	The Weather Element Browser closes. The deselected weather elements are no longer available in the GM, i.e., they are unloaded.	DR #1393
42.	Select ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> ' to bring up the <a href="#">Weather Element Browser</a> .	The Weather Element Browser dialog appears.	
43.	MB1 click on the Field button and select an available field from the dropdown menu.	The selected value is added to the Field listbox and weather elements are added to the product selection list listbox.	
44.	MB1 click the 'Load and Dismiss' button.	The Weather Element Browser closes. The selected weather element is available in the GM.	
<b>po005</b> – Add and remove sources from the <a href="#">Weather Element Browser</a> .			
45.	Bring up the <a href="#">Weather Element Browser</a> by MB1 clicking ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> '.	The <a href="#">Weather Element Browser dialog</a> appears.	
46.	MB1 click on the Source button and select two available sources from the dropdown menu.	The selected values are added to the Source listbox. The product selection list listbox has additional entries in it.	
47.	MB1 click the 'Load and Dismiss' button.	The Weather Element Browser closes. The selected sources and their weather elements are available in the GM.	
48.	Bring up the <a href="#">Weather Element Browser</a> by clicking ' <a href="#">Weather Element</a> ' -> ' <a href="#">Weather Element Browser</a> '.	The <a href="#">Weather Element Browser dialog</a> appears.	
49.	MB1 click on a highlighted value in the Source listbox to deselect it, such as 'Fcst'.	The deselected weather elements of that source are removed from the product selection list listbox.	DR #1393
50.	MB1 click the 'Load and Dismiss' button on the dialog.	The Weather Element Browser closes. The weather elements deselected are no longer available in the GM.	

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Step #	Action	Result	Pass/Fail
<b>po006 – Load Weather Elements via Procedures</b>			
51.	Bring up the <a href="#">Define Procedures dialog</a> by clicking 'GFE' -> 'Define Procedures'. MB3 popup menu on the <a href="#">Define Procedures dialog</a> and select 'New'. Enter 'po006' into the name listbox and MB1 click 'OK'.	The Define Procedures dialog opens. A python editor window with the procedures template is loaded.	DR #941
52.	Select all text in the Python editor window and remove it. Replace the text with the following:  <pre> MenuItems = ['Populate']  import SmartScript  class Procedure (SmartScript.SmartScript):     def __init__(self, dbss):  SmartScript.SmartScript.__init__(self, dbss)      def execute(self, editArea, timeRange, varDict):     elements =['T','Wind','Wx']     self.copy(elements, 73, 120, 'GFS80')     self.copy(elements, 12, 72, 'NAM12')</pre>	The text is entered into the Python window.	
53.	Save the data in the editor window by MB1 clicking 'File' -> 'Save'. Close the window by MB1 clicking 'File' -> 'Exit'. Then close the <a href="#">Define Procedures dialog</a> .	The data is saved. The Python window closes. The Define Procedures dialog closes.	
54.	Examine the Populate dropdown menu on the GFE.	Procedure po006 is present.	
55.	Save all modified data (if any) using the  toolbar button.	Any modified data is saved.	
56.	Run the procedure by selecting po006 from the Populate on the GFE.	Assuming model data is available, data will be loaded into T, Wind, and Wx, as seen by the <a href="#">green grid locks</a> in the GM, which indicate that the time periods are locked by you.	

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Step #	Action	Result	Pass/Fail
<b>po007</b> – <a href="#">Copy Selected Grids</a> and <a href="#">Copy All Grids</a> .			
57.	Select a time range within a weather element pane of the GM (e.g., T, Wind, or Wx) with a <a href="#">MB1 drag</a> .	A time range is set.	
58.	MB1 click ' <a href="#">Populate</a> ' -> ' <a href="#">Copy Selected Grids From...</a> '.	The <a href="#">Copy Selected Grids From dialog</a> appears.	
59.	Select a model from the Copy Selected Grids From dialog and MB1 click the 'OK' button.	Grids are copied from the model into the Fcst weather elements for the selected time range (assuming data is available). There are <a href="#">green grid locks</a> in the GM, which indicate that the time periods are locked by the current user.	DR #1305
60.	Revert all WEs by selecting ' <a href="#">Edit</a> ' -> ' <a href="#">Revert Forecast</a> ' From the <a href="#">Revert Forecast dialog</a> , select 'Revert Forecast'.	The <a href="#">Revert Forecast dialog</a> opens. The data is restored to that prior to the copy selected from command.	DR #1354 DR #1395
61.	Remove the selected time range by selecting ' <a href="#">Grids</a> ' -> ' <a href="#">Deselect All</a> '.	The selected time range is removed.	
62.	Select ' <a href="#">Populate</a> ' -> ' <a href="#">Copy All Grids From...</a> '.	The <a href="#">Copy All Grids From</a> dialog appears.	
63.	From the <a href="#">Copy All Grids From</a> dialog, select a model from the dialog and MB1 click the 'OK' button.	The Copy All Grids From dialog closes. Grids are copied from the model into the Fcst weather elements for all available times (assuming data is available). There are <a href="#">green grid locks</a> in the GM, which indicate that the time periods are locked by the current user.	DR #1395
64.	Save all modified data (if any) using the  toolbar button.	Any modified data is saved.	
<b>po008</b> – Eta Model is now called NAM Model			
65.	From the WeatherElement menu on the GFE main menu, select 'Weather Element Browser...'.	The Weather Element Browser opens.	
66.	From the Edit menu, select 'Select None'.	All items in the Weather Element Browser fields are removed.	
67.	Under Types, select D2D.	The D2D radio button is selected.	
68.	Under Sources, verify the Eta fields are replaced with NAM fields. Note: The test fails if there are any Eta fields available.	Verified.	
69.	Under Types, select IFP.	The IFP radio button is selected.	

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Step #	Action	Result	Pass/Fail
70.	Under Sources, verify the Eta fields are replaced with NAM fields. Note: The test fails if there are any Eta fields available.	Verified.	
71.	Under Sources, select a NAM field.	A NAM field is listed in the Sources section.	
72.	Under Fields, select a field.	A field is listed in the Fields section.	
73.	Under Planes, select 'SFC'.	'SFC' appears in the Planes section.	
74.	MB1 click 'Load and Dismiss'.	The Weather Element Browser closes. The product is the only one that appears in the GM.	
75.	In the GM, click MB1 on a grid. Verify in the SE Legends, the word NAM is in the title of the grid.	Verified.	
76.	Exit the GFE using the GFE Perspective tab.	GFE closes.	
	End of test.		

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## 5.0 REQUIREMENTS VERIFICATION TRACEABILITY MATRIX (RVTM)

Number	Description	Test Step(s)
SYSR2433	The AWIPS GFESuite shall implement Load Weather Element groups through the Weather Element Browser and GFE Main Menu.	1-9
SYSR2434	The AWIPS GFESuite shall implement Save and delete WE groups from the Weather Element Browser.	10-20
SYSR2435	The AWIPS GFESuite shall implement Weather Element Browser behavior.	21-35
SYSR2436	The AWIPS GFESuite shall implement Add and remove fields from the Weather Element Browser.	36-44
SYSR2437	The AWIPS GFESuite shall implement Add and remove sources from the Weather Element Browser.	45-50
SYSR2438	The AWIPS GFESuite shall implement Load Weather Elements via Procedures.	51-56
SYSR2439	The AWIPS GFESuite shall implement Copy Selected Grids and Copy All Grids.	57-64
SYSR2440	The AWIPS GFESuite shall implement Eta Model is now called NAM Model.	65-76

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